Choosing an Intel® Xeon Workstation to Power your Profession

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Autodesk University 2020

Basic Photogrammetry – Workflow

Creating Your Model

- Autodesk® ReCap™
- Import Photos/Scan data
- Create high-polygon count model from data

Simplifying Your Model

- Autodesk® 3ds MAX®
- Baking details from High-poly model to low-poly model
- Rendering the low-poly assets with textures

Creating your Scene

- Autodesk® 3ds Max®
- Integrating multiple models into a scene
- Final 3D Rendering with Autodesk® Arnold

Basic Photogrammetry – Creating the Model

Creating Your Model

- Autodesk® ReCap™
- Import Photos/Scan data
- Create high-polygon count model from data

SYSTEM CONFIGURATIONS TO HELP SPEED UP YOUR TASK:

- **CPU:** Multi-Threaded, # of Cores, Like our **Xeon® W-2000** Processors with **up to 18 cores.**
- **Storage:** Storage Intensive -> Using a fast SSD/Storage device to load the photos into ReCap™
- **RAM**: At least 16 GB of system memory to store the high-polygon model

Basic Photogrammetry – Simplifying Your Model

Simplifying Your Model

- Autodesk® 3ds MAX®
- Baking details from High-poly model to low-poly model
- Export to a low-polygon assets with textures

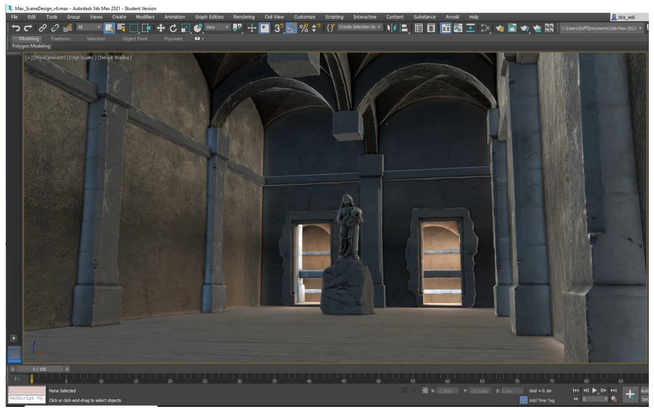
SYSTEM CONFIGURATIONS TO HELP DURING MODEL CLEAN UP:

- **CPU:** Fast CPU Frequency (GHz), Like our **Xeon® W-2000** Processors with **up to 4.8GHz**
- **Storage:** Storage Intensive -> Using a fast SSD/Storage device to feed the export process

SYSTEM CONFIGURATIONS TO HELP DURING EXPORT:

- **CPU:** Multi-Threaded, # of Cores, Like our **Xeon® W-2000** Processors with **up to 18 Cores.**
- **Storage:** Storage Intensive -> Using a fast SSD/Storage device to feed the export process
- **RAM**: At least 16 GB of system memory to store the high-polygon model

Basic Photogrammetry – Creating Your Scene



Creating your Scene

- Autodesk® 3ds MAX®
- Integrating multiple models into a scene
- Final 3D Rendering with Autodesk® Arnold

SYSTEM CONFIGURATIONS TO HELP SPEED UP RENDERING:

- **CPU:** Multi-Threaded, # of Cores, Like our **Xeon® W-2000** Processors with **up to 18 cores.**
- **Storage:** Storage Intensive -> Using a fast SSD/Storage device to feed the photos into ReCap™
- **RAM**: At least 32GB of Memory to store all your low-polygon assets in memory.

CPU Suggestions for your next Intel® Workstation

Intel® Core™ i9-10900K for Entry 3D Product Design and Simple Architecture, Single GPU

- **10 Cores/20 threads, Up to 5.2 GHz**, **Up to 128GB** of DDR4 Memory Support

Intel® Xeon® W-1290P for Entry 3D Product Design and Simple Architecture, Single GPU

- **10 Cores/20 threads, Up to 5.3 GHz**, **Up to 128GB** of DDR4 ECC Memory Support

Intel® Xeon® W-2295 for 3D modeling work and Photogrammetry, Multi-GPU

- **18 Cores/36 threads, Up to 4.6 GHz, and Up to 1TB** of DDR4 ECC Memory Support

Intel® Xeon® W-3275 for CPU-based 3D particle simulation, Multi-GPU and Large Memory Support

- **28 Cores/56 threads, Up to 4.4 GHz**, and **Up To 2TB** of DDR4 ECC Memory Support

Dell Precision Mobile

Intel® Core™ i9 and Intel® Xeon® W-1000M

Performance and reliability

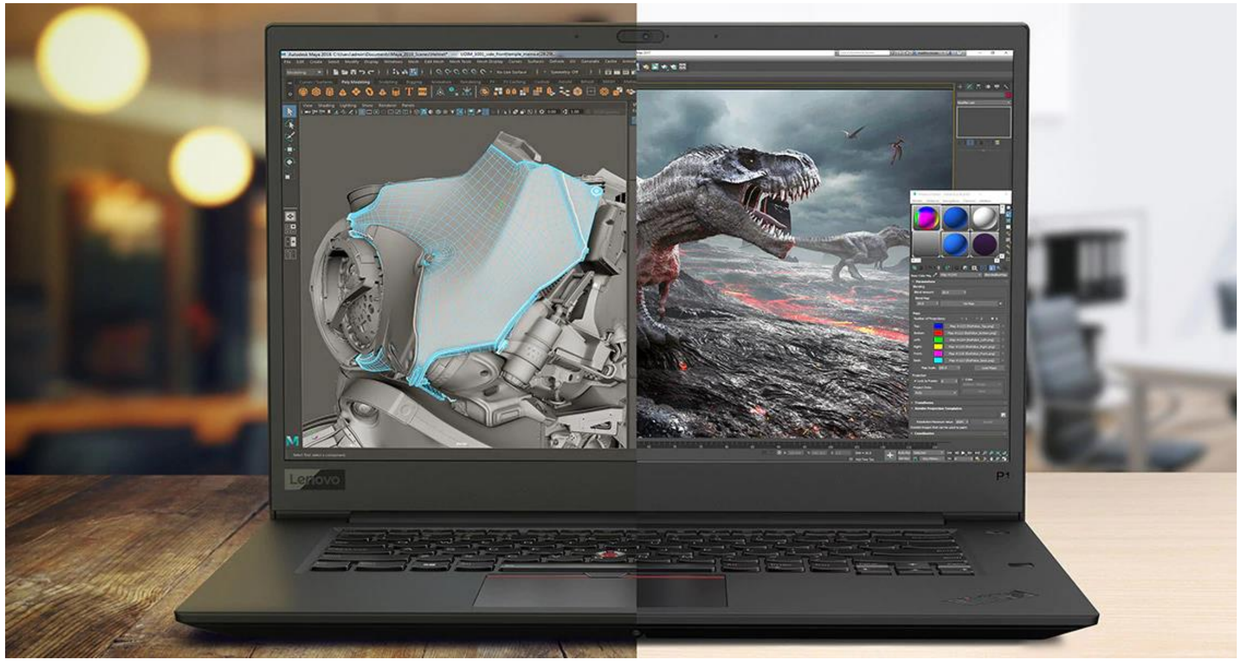
Precision workstations offering Dell's highest performing, most reliable and fully customizable mobile workstations for professional applications.

Dell Precision Workstations

Intel® Xeon® W-1000, W-2000, W-3000 and Intel® Xeon® Gold

Bring your best ideas to life

Dell Precision tower and rack workstations handle the most demanding applications across multiple industries. With fast memory, next gen graphics and extreme performance, your ideas are limitless.



Lenovo ThinkPad

Intel® Core™ i9 and Intel® Xeon® W-1000M

Fusing the portability of a laptop and the performance of a workstation, the ThinkPad P Series laptops are ISV-certified for all major applications. These systems feature lightning-fast graphics and processing, and the latest cutting-edge technology to handle your compute-intensive needs—in surprisingly light packages.

Lenovo ThinkStation

Intel® Xeon® W-1000, W-2000, and Intel® Xeon® Gold/Silver

ThinkStation P Series workstations deliver powerful performance to handle whatever jobs you need to accomplish: Powered by the latest generation of Intel® Xeon® processors combined with NVIDIA® Quadro® RTX professional graphics, in dual- and single-processor systems. Independent software vendor (ISV) certified, energy-efficient, and highly versatile, our ThinkStations feature the superior reliability you expect from Think.

HP ZBook Create and Studio

Intel® Core™ i9 and Intel® Xeon® W-1000M

For technical and creative professionals who demand pro-grade performance on the go. From the ZBook Create, (powered by an Intel® Core™ i9 processor) to the ZBook Studio, powered by an Intel® Xeon mobile processor. HP ZBook's: The Power to Turn Do into Done.

HP Z Workstations

Intel® Xeon® W-1000, W-2000, W-3000 and Intel® Xeon® SP

For technical and creative professionals who demand the highest performance for the heaviest of workloads.

HP Z6/Z8 - Perfect for +8K VFX and 3D Rendering/Simulation

HP Z4 - Built for advanced 3D CAD, BIM and Machine Learning.

HP Z2 - Perfect for entry 3D modeling and 3D Product Design.

Intel® Processors – Powering your Profession

Available in laptop or desktops, Intel® processors provide outstanding CPU performance and expanded platform capabilities for professionals creating 3D rendering, visual effects, complex CAD, AI development, and more.

Creators need purpose-built workstations that deliver the necessary power to speed 2D/3D CAD, BIM, AR, and VR content development. With multiple options for cores, threads, and large memory capacities, Intel® Xeon® processors enable the advanced workstation experience needed by creative professionals.

Resources and Links

- Intel: https://www.intel.com/content/www/us/en/products/devices-systems/workstations.html
- Stefan Ivanov, 3D Artist, YouTube: https://www.youtube.com/channel/UCu6t-gfH1vLbeFUwFGi9a3w
- 3ds Max Public Discord server: https://discord.gg/ABwhwZM
- 3ds Max Beta application link (it's super simple process): https://feedback.autodesk.com/welcome/default.html?key=3dsMaxBetaApplication
- 3ds Max Public Roadmap and What's New since Max 2016: https://makeanything.autodesk.com/3DSMAX/public-roadmap-copy-25B1-910Q7.html
- Dell: http://precisionworkstations.com/recs/Autodesk3dsmax.pdf
- HP: https://www8.hp.com/us/en/workstations/overview.html
- Lenovo: https://www.lenovo.com/us/en/thinkworkstations

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